

K131529

**510(K) SUMMARY**

SEP 24 2013

This 510(k) summary of safety and effectiveness for **Shengguang Manual Wheelchair** is submitted in accordance with the requirements of SMDA 1990 and 21 CFR 807.92

Table 1 General Information

|                      |  |
|----------------------|--|
| Applicant:           | Pingdingshan Shenxing Healthcare Technology Co., Ltd.                                    |
| Address:             | Xinxing Road South of industrial Park, Lushan County, Pingdingshan City Henan P.R. China |
| Contact Person:      | Wang Qing  |
| Telephone:           | (86 0375)- 5620005   |
| Email:               | kenwqing@gmail.com   |
| Date of Preparation: | Aug. 28, 2013  |
| Device Name:         | SHENGGUANG MANUAL WHEELCHAIR   |
| Classification Name: | Manual Wheelchair  |
| Device Class:        | Class I  |
| Regulation Number    | 890.3850   |
| Product Code:        | IOR  |
| Classification Panel | Physical Medicine  |
| Type of submission   | Traditional 510K   |

**Intended use:**

The **Shengguang Manual Wheelchair** is intended for medical purposes to provide mobility to persons restricted to a seated position.

**Indications for Use:**

The **Shengguang Manual Wheelchair** is intended for medical purposes to provide mobility to persons restricted to a seated position. **Shengguang Manual Wheelchair** is not designed, sold, or intended for use except as indicated.

**Device Description**

The Shengguang Manual Wheelchair is an indoor/outdoor wheelchair that has a base with four-wheels with a seat. The device can be disassembled for transport and it is foldable easily. Both the back and seat upholstery material is the same resistance-ignitability fabric.

All device functions, scientific concepts, significant physical and performance characteristics (i.e. device design, materials, physical properties, etc.) are identical to the design and manufacture described in Predicate Devices.

**Predicate Devices:**

- Universal Wheelchair by Graham-Field Health Products, Inc. (Formerly Everest & Jennings), 510(k) # K930411.
- 7000 Series Lightweight Wheelchairs by Nova Ortho-Med, Inc., 510(k) # K061273.

**Substantial Equivalence Discussion**

Shenxing Healthcare Technology Co. believes that its **Shengguang Manual Wheelchair** is substantially equivalent to the Predicate Devices for the following reasons.

The **Shengguang Manual Wheelchair** has the same indication as the predicate device that it is intended for medical purposes to provide mobility to persons restricted to a seated position.

There are no significant differences between the specifications, functions and performance of Shengguang Manual Wheelchair and legally marketed predicate devices to which it is claimed to be substantially equivalent.

**Summary of Substantial Equivalence Comparison**

**Table 2: Descriptive Comparison of Shengguang Manual Wheelchair to Predicate Devices**

| ITEMS        | SUBJECT DEVICE                                       |  |                  |                  | PREDICATE DEVICE                                  | PREDICATE DEVICE                          |
|--------------|--|--|------------------|------------------|---|---|
| BRAND NAME   | SHENG<br>GUANG                                       | SHENG<br>GUANG                                 | SHENG<br>GUANG   | SHENG<br>GUANG   | Everest&Jennings                                  | Nova                                      |
| MANUFACTURER | Pingdingshan Shenxing Healthcare Technology Co., Ltd |  |                  |                  | Graham-Field Health Products                      | Nova Ortho-med Inc.                       |
| MODEL NO     | SG-LY-00<br>1001<br>(Fixed armrest)                  | SG-LY-00<br>1016<br>(detachable short armrest) | SG-LY-00101<br>7 | SG-LY-00101<br>8 | Metro IC4<br>(3D020120)<br>(Universal Wheelchair) | Nova<br>7160L/7180L                       |
| 510K NO      |  |  |                  |                  | K930411   | K061273                                   |
| INTENDED USE | Same   | Same   | Same             | Same             | The device is intended for medical                | To provide mobility to adult persons with |

|         |                       |                          |            |            |      |   |  |
|---------|-----------------------|--------------------------|------------|------------|------|---|--|
|         |                       |                          |            |            |      | purposes to provide mobility to persons restricted to a seated position | limited mobility or adult persons limited to a seated position. (Over-The-Counter Use) |
| frame   | Primary Material      | Same                     | Same       | Same       | Same | Welded steel tube   | Welded steel tube  |
|         | width                 | 16"/18"<br>(406mm/457mm) | Same       | Same       | Same | 16"/18"/20"<br>(406mm/457mm/508mm)                                      | 16"/18"/20"<br>(406mm/457mm/508mm)   |
|         | Cross brace           | Same                     | Same       | Same       | Same | Yes   | Yes  |
|         | Depth                 | 895mm                    | 895mm      | 895mm      | Same | 915mm   | 915mm  |
|         | Seat                  | Same                     | Same       | Same       | Same | Width:16"/18"/20"<br>(406mm/457mm/508mm)                                | Width:16"/18"/20"<br>(406mm/457mm/508mm)   |
|         |                       | Same                     | Same       | Same       | Same | Depth 16"(406mm)  | Depth 16"(406mm)   |
|         | Backrest height       | Fixed                    | Fixed      | Fixed      | Same | adjustable  | adjustable   |
|         | Reclining backrest    | Same                     | Same       | Same       | Same | Fixed   | Fixed  |
|         | Seat sling            | Same                     | Same       | Same       | Same | Padded nylon  | Padded nylon   |
| Armrest | Frame colors          | Same                     | Same       | Same       | Same | Black   | Black  |
|         | Arm pad               | Same                     | Same       | Same       | Same | Padded  | Padded   |
|         | Flip back             | Fixed                    | Detachable | Detachable | Same | Flip back   | Flip back  |
| HANGERS | Height-adjustable     | Same                     | Same       | Same       | Same | No  | No   |
|         | Swing-away            | Same                     | Same       | Same       | Same | Yes   | Yes  |
|         | Elevating leg rest    | Same                     | Same       | Same       | Same | Yes   | Yes  |
|         | Articulating leg rest | Same                     | Same       | Same       | Same | No  | No   |
|         | Footplate style       | Same                     | Same       | Same       | Same | PA  | PA   |
|         | Heel loop             | Same                     | Same       | Same       | Same | No  | No   |
| REAR    | Footrest angle        | Same                     | Same       | Same       | Same | 20°   | 20°  |
|         | Offset axle           | Same                     | Same       | Same       | Same | No  | No   |

|                      |                    |                           |                           |                  |      |                    |                    |
|----------------------|--------------------|---------------------------|---------------------------|------------------|------|--------------------|--------------------|
| AXLE                 | Quick-release axle | Same                      | Same                      | Same             | Same | No                 | No                 |
|                      | Whorl              | Same                      | Same                      | Same             | Same | Yes                | Yes                |
| REAR WHEEL           | Size               | Same                      | Same                      | Same             | Same | 24"<br>Solid nylon | 24"<br>Solid Nylon |
|                      | Tire type          |                           |                           |                  |      |                    |                    |
|                      | Handrim material   |                           |                           |                  |      |                    |                    |
| CASTERS              | Size               | Same                      | Same                      | Same             | Same |                    | 8"<br>Solid        |
|                      | Tire type          |                           |                           |                  |      |                    |                    |
| WHEEL LOCK           |                    | Same                      | Same                      | Same             | Same | Manual             | Manual             |
| Upholstery Material  |                    | PVC<br>(Same as GF Vista) | PVC<br>(Same as GF Vista) | Same             | Same | Nylon              | Nylon              |
| WEIGHT CAPACITY      |                    | 250lbs                    | 250lbs                    | Same             | Same | 300lbs/136kg       | 300lbs/136kg       |
| WEIGHT OF CHAIR      |                    | 17.3kg<br>(38lb)          | 18.6kg<br>(41lb)          | 17.3kg<br>(38lb) | Same | 15.5kg(34lb)       | 15.5kg(34lb)       |
| WARRANTY             |                    | Same                      | Same                      | Same             | Same | 5 years on frame   | 5 years on frame   |
| OPTIONAL ACCESSORIES | Anti-tipper        | No                        | No                        | No               | Same | Yes                | Yes                |

The **Shengguang Manual Wheelchair** and the predicate devices employ the same technology and are similar in design, dimensions and other technological features. As seen in Table 2, the only differences in features between the **Shengguang Manual Wheelchair** and the predicate Devices are small differences in the weight of the wheelchair, style of the backrest height and armrest. These differences do not affect the safety and effectiveness of the **Shengguang Manual Wheelchair** compared to the predicate device.

#### **Technological/Safety Characteristics and Performance Testing**

The **Shengguang Manual Wheelchair**'s technological and safety characteristics are identical to those described in the Predicate Devices.

Non-clinical testing has been performed on the Shengguang Manual Wheelchair and the results demonstrate compliance with the following standards:

ANSI/RESNA WC-1:2009 American National Standard for Wheelchairs - Volume 1: Requirements and Test Methods for Wheelchairs (including Scooters) Section 1 Determination of static stability

ANSI/RESNA WC-1:2009 Section3: Determination of effectiveness of brakes

ANSI/RESNA WC-1:2009 Section 5: Determination of dimensions, mass and maneuvering space

ANSI/RESNA WC-1:2009 Section 7: Method of Measurement of Seating and Wheel Dimensions

ANSI/RESNA WC-1:2009 Section 8: Requirements and test methods for static, impact and fatigue strengths

ANSI/RESNA WC-1:2009 Section 11: Test dummies

ANSI/RESNA WC-1:2009 Section 13: Determination of coefficient of friction of test surfaces

ANSI/RESNA WC-1:2009 Section 15: Requirements for information disclosure, documentation and labeling

The upholstery material for the SG-LY-001001/ SG-LY-001016 and SG-LY-001017/SG-LY-001018 series is the same as those used for the Graham Field Vista model and the Graham Field Metro IC4 model, respectively. It was tested in accordance with the California Technical Bulletin 117 Section E Part 1 and was shown to be Class 1 – normal flammability.

The foam material for the seat cushion was tested for flammability in accordance with the California Technical Bulletin 117 Section A Part 1 and Section D Part 2, and was shown to meet the performance standards.

#### **Biocompatibility**

The patient contacting components of the **Shengguang Manual Wheelchair** use the same materials, have the same chemical composition, and are manufactured using the same process by the same suppliers, as those of the Predicate Devices. Therefore, the Shengguang Manual Wheelchair meets the biocompatibility requirements in accordance with FDA Guidance G95-1. The comparison is shown in Table 3a and Table 3b.

Table 3a. Comparison with Predicate Device Parts:

| Model                               | Parts         | Material | Comparison Device   | 510(k) NO. |
|-------------------------------------|---------------|----------|---------------------|------------|
| Shengguang Manual Wheelchair Series | Handgrip      | PVC      | YUYUE K2 Wheelchair | K120526    |
|                                     | Armrest shell | ABS      | YUYUE K2 Wheelchair | K120526    |
|                                     | Handrim       | Nylon    | YUYUE K2 Wheelchair | K120526    |
|                                     | Brake handle  | Rubber   | YUYUE K2            | K120526    |

|  |  |  |            |  |
|--|--|--|------------|--|
|  |  |  | Wheelchair |  |
|--|--|--|------------|--|

Table 3b. Comparison with Predicate Device Parts:

| Model  | Parts                          | Material             | Comparison Device          | 510(k) NO. |
|--|--------------------------------|----------------------|----------------------------|------------|
| Shengguang<br>Manual<br>Wheelchair<br>Series | Upholstery of<br>seat and back | Oxford<br>cloth, PVC | YUYUE K2, K4<br>Wheelchair | K120526    |
|  |                                |                      | JUMAO MANUAL<br>WHEELCHAIR | K082784    |

**Conclusion:**

The data submitted in this 510(K) Premarket Notification supports the finding that this device is substantially equivalent with respect to the intended use, technology, functionality, and safety features to the legally marketed Predicate Devices.

Therefore, we believe that this device meets the requirement for a "Substantial Equivalence" decision in accordance with the 510(K) guidelines.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-0002

September 24, 2013

Pingdingshan Shenxing Healthcare Technology Co., LTD  
c/o Mark Job  
Regulatory Technology Services LLC  
1394 25<sup>th</sup> Street NW  
Buffalo, MN 55313

Re: K131529  
Trade/Device Name: Shengguang Manual Wheelchair  
Regulation Number: 21 CFR 890.3850  
Regulation Name: Mechanical Wheelchair  
Regulatory Class: Class I  
Product Code: IOR  
Dated: September 11, 2013  
Received: September 12, 2013

Dear Mr. Job:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must

comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Joyce M. Whang -S**

for Victor Krauthamer, Ph.D.  
Acting Director  
Division of Neurological and  
Physical Medicine Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure



## Indications for Use

510(k) Number (if known): K131529

Device Name: Shengguang Manual Wheelchair

### Indications For Use:

The device is intended for medical purposes to provide mobility to persons restricted to a seated position.

Prescription Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use   X    
(21 CFR 807 Subpart C)

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NEEDED)

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Concurrence of Center for Devices and Radiological Health (CDRH)

**Joyce M. Whang -S**